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ABSTRACT

This study examined the use of interactive educational television (IETV) in secondary school classrooms. Distance education directors were asked to respond to questions involving the use of IETV programs within their schools. Twenty-three high schools in the Southwest were randomly chosen. Sixteen schools presently used IETV, five previously used IETV, and two never used IETV. Of the twenty-one schools that used or previously used IETV classes, the programs had been in place on the average of three to five years. Data were collected through preliminary phone interviews, questionnaires by mail, and questionnaires by email. Open-ended follow-up phone interviews were also conducted. Data were categorized into five major areas of inquiry: expectations, development, feedback, effectiveness, and support. The information gathered during the investigation is presented in this paper according to these areas. Even though this study was exploratory in nature and not conclusive, data indicated that most of the participants were satisfied with their interactive distance learning programs. Responses to the five areas of inquiry are tabulated. (Contains 15 references.) (AEF)

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Speaking with Interactive Educational Television Directors in Secondary Schools:

Is IETV Making the Grade?

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Speaking with Interactive Educational Television Directors in Secondary Schools: Is IETV Making the Grade?

Introduction

For educators and administrators faced with incorporating technology in the classroom, this task often seems overwhelming (Teachers Face a Techno-Culture Shock, 1999). These people must bring the latest and most up-to-date educational systems to their students. And with these technology changes, the need often comes to re-examine philosophies of education (Girod and Cavanaugh, 2001). Sometimes, traditional classroom instruction is no longer sufficient. Distance education is one way in which technology can supplement face-to-face classroom instruction.

Although distance education has existed through correspondence courses since the mid 1800's, the term has taken on new meanings in the last several years (Gagne & Shepherd, 2001). The California Distance Learning Project uses the following definition: "Distance Learning (DL) is an instructional delivery system which connects learners with educational resources. DL provides educational access to learners not enrolled in educational institutions and can augment the learning opportunities of current students" (California Distance Learning Project, 1999).

One aspect of distance learning that many schools have found valuable is television-based distance learning. This format has allowed many districts to broaden their curriculum choices for students. In 1997, some 170 various high schools across the United States added German by satellite to their secondary schedules (Boverie, 1997). Other than expanding curricula, television based instruction has also aided school districts in additional ways. As well, many community colleges and universities are now

offering high school students concurrent enrollment options through the assistance of televised education (Carlson, 2001). Teachers have also found that showing students abstract concepts through television-based graphics increases student comprehension (Carlson, 2001; Polyson, Saltzberg, & Godwin-Jones, 1996). Furthermore, educators have found that collaborative learning projects for students are enhanced through televised instruction because of a greater student diversity (Starr, 1999). However, students are not the only ones who benefit from televised education. Teachers and administrators can benefit as well through a larger selection of staff development programs or even graduate degree oriented programming (Beckner & Barker, 1994).

As with any form of educational program, there are certain limitations to television based instruction. With televised instruction, teachers have few or no visual clues to use to enhance the delivery of instructional content (Pullen & Benson, in press). To help counteract this limitation and to help students adjust to a televised teacher, Reed (1999) suggests instructors set clear expectations prior to instruction and provide advice on using equipment and classroom conduct. Gagne and Shepherd (2001) found that the biggest weakness of television based instruction was the limited interaction between the instructor and the off-site students. This limitation can especially be troubling when a school is using taped televised instruction methods. However, when examining live versus taped formats of televised educational programs, Boverie (1997) found that watching the programs taped had the same educational effect on students as watching the programs live. In Bozic's (1996) study, she also found that distant-site students felt their course participation had been successful. Further, Harvey and De Vore (2000) state that

it is the instructors' responsibility to create activities which bring the sites together and foster interaction; the technology, itself, is not the problem.

To increase successful learning experience, Girod and Cavanaugh (2001) recommend that instructors who use technology in their classroom remember that their role in the classroom is changing from a giver of knowledge to one who allows students to construct meaning. Northern Arizona University (1998) offers more encouragement, saying that although it can be frightening at first, both instructors and students tend to adapt to technology quickly, and the positive elements of distance learning are worth the effort.

Demographics

Distance learning is inclusive of many different forms of education; however, we have limited our study to television based instruction in the Southwest. Specifically, we examined the use of interactive educational television (IETV) in secondary school classrooms. Distance education directors were asked to respond to questions involving the use of IETV programs within their schools. For our study of the effectiveness of IETV, twenty-three high schools in the Southwest were randomly chosen. Sixteen schools presently used IETV, five previously used IETV, and two never used IETV. Of the twenty-one schools that used or previously used IETV classes, the programs had been in place on the average of three to five years. The participants for the study were the directors of the IETV programs.

In a state that averages a high-school enrollment of 361.3 students, three of the schools had less than 100 students, fifteen had 100-500, two had 500-1000, one had 1500-2000, and two had over 2000 students. IETV enrollment in these schools ranged

from three to sixty, depending on the size of the school. To supervise the IETV classes, two schools used an on-site facilitator, two used facilitators during testing, and eleven used television monitors which broadcast into the administrators' offices.

The classes offered through IETV ranged widely in scope. Ten schools had created consortiums with other high schools and only offered state-required classes for graduation. One school offered required and elective high school courses. Five schools offered classes with concurrent enrollment for high school and college credit.

Methodology

Data for the study were collected through preliminary phone interviews, questionnaires by mail, and questionnaires by e-mail. We also conducted open-ended follow-up phone interviews. The preliminary phone interviews were conducted with those individuals responsible for the IETV program in their schools. The interview established basic information about the school's use of interactive education television and demographic statistics about the site. Once we conducted the preliminary interview, questionnaires about IETV were provided to the participants either by mail or e-mail, depending on their preference. A few participants asked us to read the questionnaires over the phone, so they could provide oral responses, and we would mark the form for them. Once we collected all the questionnaires, we conducted follow-up phone interviews, tailoring questions to their individual responses. These data were categorized into our areas of inquiry.

Findings

The following section is organized according to the five major areas of inquiry: expectations, development, feedback, effectiveness, and support. The information

gathered during the investigation is presented according to these areas rather than according to categories based on data collection methods (Figure 1).

Expectations

The area of expectations deals with how the directors perceived that the IETV programs within their schools would or could enhance curriculum offerings as well as increase standardized tests scores and in-service opportunities for the teachers. When asked if core curriculum offerings were expected to increase as a result of IETV, 50% of the directors either agreed or strongly agreed that these offerings would indeed increase. Five of the directors of smaller schools (student population 500 or less) were very enthusiastic because within the next year they were going to be able to offer classes in both music and art appreciation, which their state department required. However, when the question of whether or not standardized tests scores would increase, 68.75% neither agreed nor disagreed. When it came to the question of increasing the teachers' in-service opportunities, almost 50% explained that they planned or already had programs in place for enhancing these services for their teachers.

Development

The development of IETV classes was another primary focus of the present study. The questions in this area deal with funding for the programs, use of building facilitators, students' prior knowledge of IETV classes, and obtaining reliable information regarding the programs. Funding for IETV programs seemed to be easily enough obtained because some 60% of the directors said they had no problems or few problems in this area with most of the money coming from local grants. When asked if the building facilitator for IETV classes had had training in interactive television technology, 40% strongly agreed,

while at the same time 40% strongly disagreed. Again, we found 40% of responses at each end of the spectrum when we asked if students needed to be informed of what these classes entailed prior to participating in them. Of the 40% who strongly disagreed, one director disclosed that in his school all the students were hand picked by teachers and administrators thereby only allowing honor students or students in the upper percentile of their classes to participate in the IETV program. For the districts that broadcasted classes to other schools, almost 75% agreed and strongly agreed that the teachers doing the broadcasting did indeed know where to obtain reliable information regarding IETV technology.

Feedback

The third point of inquiry for the present study deals with off-site students receiving adequate and timely feedback from IETV teachers, students at off-site locations having the same opportunities for classroom participation as students at on-site locations, and off-site students having a timely manner to complete course work. Almost 90% of the IETV directors felt that their students received adequate or above adequate feedback from the IETV teachers, and some 68.75% strongly agreed and agreed that this feedback came in a timely fashion. Around 19% neither agreed nor disagreed that the feedback was timely and adequate, while 12.5% disagreed and strongly disagreed that the feedback was timely and adequate. When it came to students having the same opportunities for participation as students in the host school classrooms, 73% of the participants agreed and strongly agreed that their students were given the same opportunities. However, over 13% of the participants disagreed and strongly disagreed, feeling that their students did not receive the same opportunities, and as well, 13% neither agreed nor disagreed. When

asked if students had a timely manner to complete coursework, over 73% agreed and strongly agreed that the students did have plenty of time, while 20% neither agreed nor disagreed and 6.67% disagreed.

Effectiveness

Effectiveness covers four major areas: students feel course grades reflect their work; administrators are happy with the grades students receive; IETV courses enhance college success; curriculums have become more competitive with other schools. When the participants were asked how their students responded to the grades they received in the IETV classes, over 66% strongly agreed and agreed that their students were content with the grades they received. Over 26% neither agreed nor disagreed with this question and over 6% strongly disagreed. However, 80% of the participants strongly agreed and agreed that they, personally, were pleased with the grades that their students received. When asked if IETV classes enhanced their students' success in college, 73% strongly agreed and agreed with 13% neither agreeing nor disagreeing and also 13% strongly disagreeing. An overwhelming 80% of the participants felt IETV classes made their curricula more competitive with other schools.

Support

The last area of inquiry for the present study covers support from local legislators, school board, teachers, and students. In response to local legislators supporting IETV courses, some 66.67% of the participants strongly agreed and agreed that their legislators did indeed support them. Twenty percent neither agreed nor disagreed with this question, while 13% strongly disagreed and disagreed. When replying to whether or not their local school boards supported the IETV programs, over 86% strongly agreed and agreed that

their boards did support them. Sixty percent of the participants said that their teachers supported the programs. Thirty-three percent neither agreed nor disagreed that their teachers supported the IETV classes and 6.67% strongly disagreed. Some of the participants pointed out that their teachers supported the programs as long as they did not have to teach any IETV classes. As far as student support was concerned, 80% of the participants said that their students who were enrolled in IETV classes supported their programs with 13.33% neither agreeing nor disagreeing with student support and 6.67% strongly disagreeing. The number of students enrolled in IETV classes for our participating schools ranged from 3 to 60 students.

Discussion

Even though this study was exploratory in nature and not conclusive, data indicated that most of the participants were satisfied with their interactive distance learning programs. Many of the participants disclosed that one of the largest benefits to their programs was that they were able financially to meet state mandated requirements of certain classes as well as offer elective classes to their students. Research shows that interactive distance learning can benefit small rural schools as well as larger urban schools by teacher sharing since one teacher can teach an on-site class as well as broadcast to one or more remote sites at the same time, making these programs a cost effective way of providing required and elective coursework (Pioneer IETV Network). Another positive aspect we found from our participants was that funding for IETV programs seemed to be amply available through their local businesses such as telephone and cable companies as well as through local vocational technology schools. Again, many of the participants seemed pleased with the interaction between students and IETV

instructors. When investigating the interaction between students and instructors in an interactive distance learning setting, Bozik (1996) found that the students evaluations of classroom interactions and strategies used by instructors were generally effective. Futhermore, not only did our participants personally support their IETV programs, but they felt that their local legislators, school boards, teachers, and students supported their programs as well. This positive attitude can be beneficial for schools using learning from a distance because as research shows, interactive distance education can indeed "complement, enhance and expand education options" (Cavanaugh, 1999) for all schools.

Is IETV Making the Grade?

Figure 1

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
EXPECTATIONS					
I expect core curriculum offerings to increase from IETV classes.	31.25	18.75	12.5	6.25	31.25
I expect elective curriculum offerings to increase from IETV classes.	75	18.75	6.25	0	0
I expect standardized test scores to increase from IETV classes.	0	12.5	68.75	6.25	12.5
I expect IETV classes to increase teachers' in-service opportunities.	26.67	20	26.67	6.67	20
DEVELOPMENT					
Funding for IETV classes is difficult to obtain.	0	20	20	20	40
Building facilitators for IETV classes have had training in interactive tv.	40	6.67	6.67	6.67	40
Prior to participating, students are informed about IETV classes.	40	13.33	6.67	0	40
The teachers know where to obtain reliable information regarding IETV.	53.33	20	0	0	26.67
FEEDBACK					
Students receive adequate feedback from IETV teachers.	43.75	43.75	6.25	0	6.25
Students express that instructor feedback is timely and adequate.	25	43.75	18.75	6.25	6.25
Students feel they have the same chance to participate as host students.	13.33	60	13.33	6.67	6.67
Students have a timely manner to complete course work.	20	53.33	20	6.67	0
EFFECTIVENESS					
Students express that IETV course grades reflect their work.	53.33	13.33	26.67	0	6.67
As an administrator, I am happy with the grades in IETV courses.	53.33	26.67	13.33	0	6.67
IETV does enhance students' success in college.	40	33.33	13.33	0	13.33
IETV has made curriculum more competitive with larger schools.	53.33	26.67	6.67	0	13.33
SUPPORT					
Our local legislators support IETV courses.	26.67	40	20	6.67	6.67
Our school board supports IETV courses.	66.67	26.67	0	0	6.67
Our teachers support IETV courses.	26.67	33.33	33.33	0	6.67
Our students support IETV courses.	20	60	13.33	0	6.67

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